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Experiments on triggered whistler emissions[1] KYLE STROHMAIER, J. MANUEL URRUTIA, REINER STENZEL, UCLA — Emission of whistler modes from a laboratory plasma with locally anisotropic electrons has been observed. In order to measure the spatial growth rate of the possibly convective whistler instability test whistler waves have been injected into the source region. The frequency is chosen near the most unstable mode (< 7 MHz $\simeq 0.3\omega_{ce}$). It is observed that the test wave is not amplified but the whistler emission is greatly enhanced. The emission can be distinguished from the test wave by its different field topology and frequency which chirps downward in time. Thus, the test wave triggers an enhanced emission of an absolute whistler instability. These findings will be compared with observations of triggered emissions in the magnetosphere.

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